Data Visualisation with Dash

Instructions

Background Information

You work for Quick Mart company as a Data Analyst and have been given a dataset that contains data about recent customer purchases. Your task is to create a dashboard that will be deployed on the web and will communicate key insights about the sales of products across the retail store branches:

Using knowledge of Dash, create a dashboard that:

- Gives a unified view of the sales of products across all branches.
- Compares the performance of normal customers vs member customers.
- Displays the top 5 selling product lines along with the total revenue.
- Displays the net revenue
- Displays average rating for all stores.

While creating the dashboard, ensure that it's organized in columns, there are a variety of charts and users can use interactive components to drill down on the data of interest.

You can use the CRISP methodology steps for working on this project i.e. Business Understanding, Data Preparation, Data Analysis, and Data Presentation.

Your deliverable will be a Python Notebook.

Dataset

The dataset provided contains sales data for the past three months.

- Dataset Link: https://bit.ly/SupermarketsDS

Attribute information

- **Invoice id:** Computer generated sales slip invoice identification number
- **Branch:** Branch of supercenter (3 branches identified by A, B, and C).

- **City:** Location of supercenters
- **Customer type:** Type of customers, recorded by Members for customers using member card and Normal for without member card.
- **Gender:** Gender type of customer
- **Product line:** General item categorization groups - Electronic accessories, Fashion accessories, Food and beverages, Health and beauty, Home and Lifestyle, Sports and travel
- **Unit price:** The price of each product in $
- **Quantity:** Number of products purchased by the customer
- **Tax:** 5% tax fee for customer buying
- **Total:** Total price including tax
- **Date:** Date of purchase (Record available from January 2019 to March 2019)
- **Time:** Purchase time (10 am to 9 pm)
- **Payment:** Payment used by the customer for the purchase (3 methods are available – Cash, Credit card, and Ewallet)
- **COGS:** Cost of goods sold
- **Gross margin percentage:** Gross margin percentage
- **Gross income:** Gross income
- **Rating:** Customer stratification rating on their overall shopping experience (On a scale of 1 to 10)

Dataset Source

- https://www.kaggle.com/agasca/retail-sales